

REMARKS

By this Amendment claim 22 has been amended to include the features of claims 23 and 25 (now canceled), claim 24 has been canceled, claims 26, 29, 30 and 34 have been corrected, claim 31 has been amended to include the feature of claim 32 (now canceled), claim 33 has been revised to depend from claim 31, and claim 35 has been amended to include the feature of claim 36 (now canceled). Entry is requested.

In the outstanding Office Action the examiner has objected to the drawings for various reasons. However, it is submitted that the drawings in fact depict the inventive features defined in the claims. Note the concurrently filed Letter Re Drawings.

The examiner has rejected claims 22, 24 and 27-36 on the grounds of obviousness-type double patenting over claims 22, 23, 27, 30-36 and 38-40 of co-pending application Serial No. 10/550,304, and he has rejected claims 22, 23 and 35 as anticipated by application Serial No. 10/550,304.

These rejections must be withdrawn.

It is true that the invention disclosed in co-pending application 10/550,304 appears to be similar to that of the present application. However, the second sensor type used and the second X-ray image produced (the panoramic tomographic image being the first X-ray image and its sensor being the first sensor) are different in these applications:

Here a summary of the different X-ray exposures and sensors used:

- a) panoramic tomographic image (PAN): line sensor (about 1000x50 Pixel) with large depth of focal plane and operated in a mode with a fan beam;
- b) tomographic image (TSA): area sensor (about 400x300 Pixel) with small depth of focal plane and operated in a mode with a fan beam;
- c) 2D image: area sensor operated in a mode of producing a plane image without a tomographic information and operated in a mode with a cone beam.

10/550,600: in this application the camera and the X-ray system are designed for making 3D images out of a set of 2D images by reconstruction algorithms. The 2D images have no focal plane (or an endless depth). Use is made of a) and c).

10/550,304: in this application no objection has been raised up to now and the camera and the X-ray system are designed for making different types of tomographic images with different depths of the focus profile.

Use is made of a) and b).

Conclusion: the claimed subject matter of these patent applications differs sufficiently from each other.

The examiner has rejected claims 22-24, 26, 30 and 31 under 35 U.S.C. 102(b) as being anticipated by Pfeiffer.

This rejection is not proper. Pfeiffer discloses X-ray diagnostic apparatus for producing panorama slice exposure of body parts.

However, this patent only discloses the conception of the images a) PAN and b) TSA - in column 3, lines 58-62, it is clearly disclosed that "wide detectors constructed in this way make it possible to produce images with low depth of field." There are no non-tomographic 2D images and there are no means for reconstruction a 3D image at all. Of course, it is possible to arrange several slices one behind another and to scroll from the first to the last - but that is not a 3D image.

Even with the calculations in column 5, lines 20-63, there is no possibility to obtain a 3D image, since the basis are tomographic images.

The examiner has rejected claims 22-24, 26, 27 and 30-36 under 35 U.S.C. 102(b) as being anticipated by Zeller et al.

However, Zeller clearly does not teach translucent zones in the sensor where X-rays pass the entire camera - the teaching of Zeller et al. is an aperture in one surface of the casing to allow the X-ray beam to enter the casing and to interact with the sensor inside the casing. There is no pass through of the X-ray beam.

The examiner's rejection based on Zeller et al. should be withdrawn.


The examiner has rejected claim 25 under 35 U.S.C. 103(a) as being unpatentable over Zeller et al. in view of Yavus et al.

Yavus et al. disclose a method and apparatus for reconstructing image data acquired by a tomosynthesis X-ray imaging system.

However, nothing in Yavus et al. would overcome the basic deficiencies in Zeller et al. in suggesting the invention defined in amended claim 22.

Favorable reconsideration of this application is requested.

Respectfully submitted,

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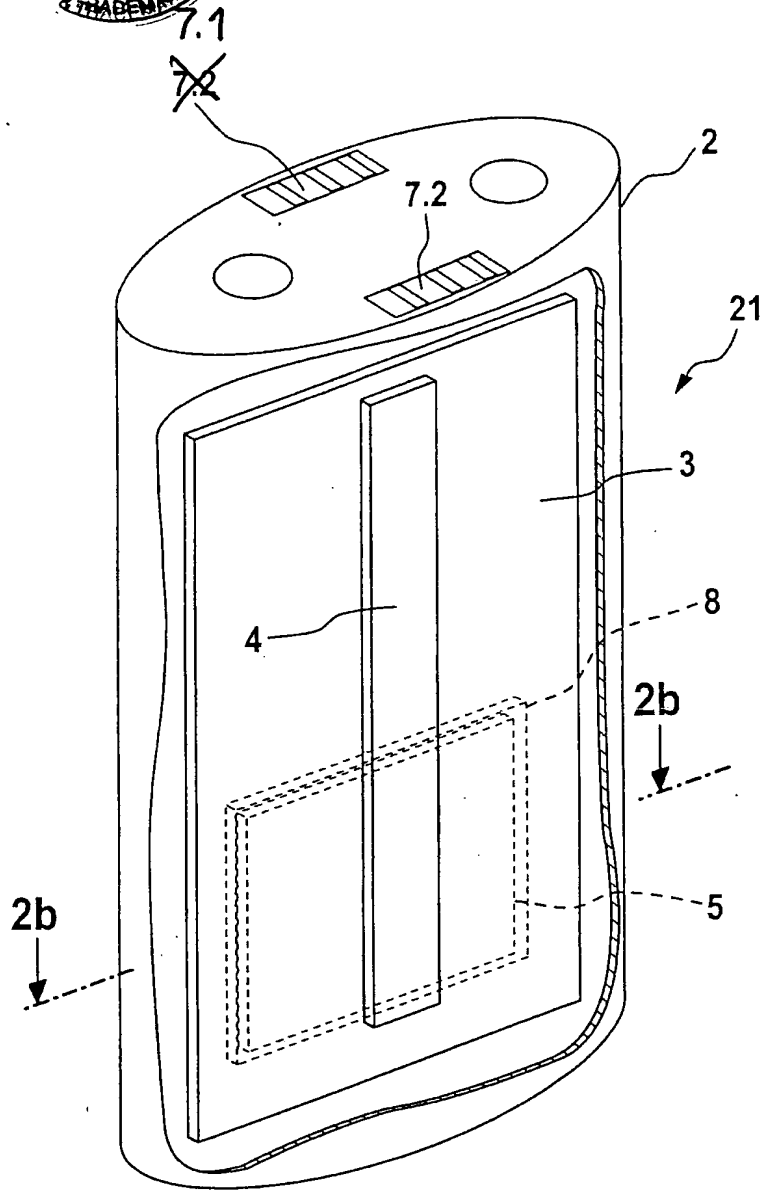


FIG. 2a

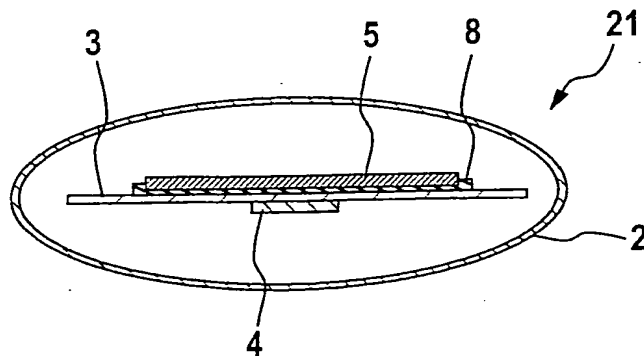


FIG. 2b